RECORD OF INVENTION

1. DATE: 6 August 1968

SUBMIT IN TRIPLICATE TO CHAIRMAN, CIA PATENTS BOARD

STAT

2. NAME: [redacted]

3. POSITION TITLE AND GRADE OR RANK: Mechanical Engineer GS-13

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4. OFFICE: [redacted]

5. DIVISION: NPIC/TSSG/DED

6. BRANCH: R&D Branch I

7. [redacted]

8. HOME ADDRESS: (Same as above)

9. TITLE OF INVENTION: Hole Cutter

10. BRIEF DESCRIPTION OF INVENTION

A device used to cut holes in film and other materials by the reciprocating action of a die and punch. The movement of the film under the reciprocating punch produces an elongated hole of any desired length. See attached description.

DEVELOPMENT AND DISCLOSURE DATA

11.	DATE	PLACE
A. CONCEPTION BY INVENTOR	17 June 1968	Washington, D.C.
B. DISCLOSURE TO OTHERS	Late June 1968	" "
C. FIRST SKETCH OF DRAWING	Late June 1968	" "
D. FIRST WRITTEN DESCRIPTION	Late June 1968	" "
E. COMPLETION OF MODEL OR FULL-SIZED DEVICE	1 August 1968	" "
F. FIRST TEST OF OPERATION OF INVENTION	1 August 1968	" "

STAT 12. HAS INVENTION BEEN REDUCED TO PRACTICE? X YES NO

13. NAMES OF PERSONS HAVING KNOWLEDGE OF FACTS STATED UNDER 11.B.

[redacted]

14. STATE TO WHAT EXTENT THE CONCEPTION OF THE INVENTION IS BASED ON INFORMATION OBTAINED FROM YOUR OFFICIAL DUTIES, AND, TO WHAT EXTENT GOVERNMENT TIME, MATERIALS, FACILITIES, EQUIPMENT, ETC. WERE UTILIZED IN MAKING INVENTION.

I was assigned the task of studying the requirement and suggesting proposed solutions. However, I developed the device without having been assigned that task. I used my wife's sewing machine for 80% of the required components. The other 20% were furnished by the Government.

15. ASSIGNMENTS, IF ANY

Rights to manufacture and use this device are given to the Government but the inventor requests all commercial rights to this invention.

STAT [redacted]

WITNESS [redacted] DATE 6 Aug 68

[redacted] DATE 6 Aug 68

ATTACHMENTS

18. [ ] DESCRIPTION WITNESSED BY TWO INDIVIDUALS [X] DRAWINGS OR SCHEDULES [ ] MODELS

(36)

FORM NO. 915
1 JUN 56

HOLE CUTTER -- Description of Operation

This device is used to punch round holes or elongated slots in film or other materials. When a photographic transparency of an object is made, it is often projected onto a screen by means of any of several types of projectors that pass light through the transparency. Often these transparencies are annotated. The transparent annotation cannot be placed over an opaque or translucent protion of the transparency or the light will not shine through the letters properly. One means of overcoming this problem is to cut away a slot from the opaque portion of the photographic transparency and adhere the annotation over the slot. Sufficient light thus passes through the slot and through the letters of the transparency. The device described is for use in cutting such holes.

Referring to Figure 1, a punch (1) is attached by means of a screw (2) to a collar (3) which is in turn affixed to a reciprocating shaft (4) also by means of a screw (5). The shaft slides vertically, being restrained by two bearings (6) and (7). A connecting rod (8) is attached to shaft (4) by a pivotable link (9) and is pivotably attached to a rotating crank (10). This crank is affixed to shaft (11) which is supported by bearings (12) and (13) and driven by a pulley (14). Pulley (14) is driven by a belt (15) which transmits power from pulley (16) on motor (17). A frame (18) contains the entire drive mechanism. The mating die (19) is concentrically mounted with the punch (1). The mating die is mounted into a transparent holder (20). A light (21) is located beneath the transparent holder to provide light to the punching operation. The light also shines through the film (22). The film slides along a guide (23). The guide is attached to a movable slide (24) which moves along a rail (25), thus movement in two directions is possible. The punch (1) reciprocates at a rate of about 600 cycles per minute. As the film (22) is moved under the punch at a rate of about one inch every two seconds, it thus receives the cutting action of the punch and die at sufficiently close intervals to produce nearly perfectly straight cut sides on the slot. When the motor stops, the punch (1) may be in the down position. The hand wheel (26) is then rotated so that the punch moves to the up position and the film (22) can be removed from the device.

Figure 2 shows the shape of a typical hole cut by the device.

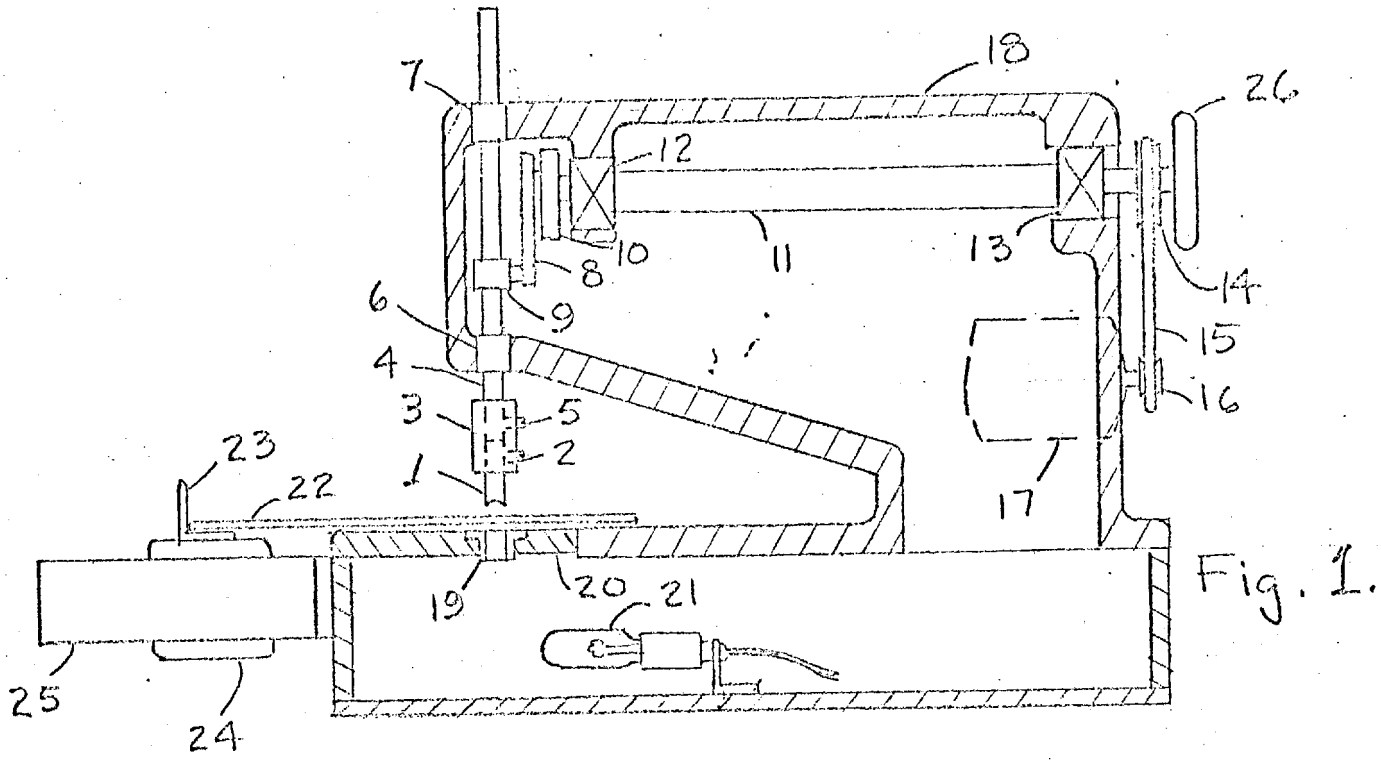

Fig. 1.

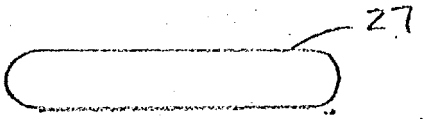

Fig 2.

[redacted]

25X1

25 February 1969

STAT MEMORANDUM FOR: [redacted]

FROM : Chairman, CIA Patents Board

SUBJECT : Determination of Interest

1. The CIA Patents Board has reviewed your record of invention entitled "Hole Cutter".

2. The Board ruled that the Government be given royalty-free rights to this invention and that the inventor should have all commercial rights. This ruling is based on the inventor's assignment in this Agency and the relationship of his duties to this invention.

3. A copy of this record of invention will be forwarded to the Executive Secretary of the Suggestions Awards Board for their consideration.

4. If you do not concur with the Board's ruling, you have the right to obtain a review by filing within thirty (30) days after receipt of this notice of determination an appeal.

5. The Board will take no further action on patenting this record of invention unless the inventor files notice that he wants the Government to initiate filing action. In such cases a memorandum from the directorate office is required stating that the invention is of sufficient interest to this Agency or to the Government that it warrants patenting.

[redacted] STAT

Chairman
CIA Patents Board